baseflow
Posted by adehoces - 2008/02/25 09:19

Hello!
I am trying to include baseflow in my simulations but I am having several problems.
First of all, I have read the paragraphs included in the User Manuel 1.5 regarding this topic and I am a bit confused about them. It says that each record in the stream attribute table refers to a channel of the reach, but it also states that Kineros applies an interpolation routine to the baseflow values between nodes. I don't understand why, considering each channel has it own value in the attribute table.
I don't also understand what happens if I set a 0 baseflow value. Do I have infiltration in this channel?
Finally, I have tried different values of baseflow in my project and, although values bigger or equal to 0.001 m3/s are allowed in the table, I am under the impression that values smaller than 0.01 can't be included accurately in the simulation (peak discharge is increased but still have nearly the same number of 0 values in the hydrograph, as can be seen in this picture). Is that right?
Thank you very much,
Ana

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Re:baseflow
Posted by adehoces - 2008/02/25 09:21

Sorry, I got an error message and the picture hasn't been included. I'll try again:
http://www.tucson.ars.ag.gov/agwa/images/fbfiles/images/Dibujo.JPG

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Re:baseflow
Posted by lainie - 2008/02/26 20:32

Hi Ana,

I'll try to address each of your questions.

The nodes referred to in the user manual are the internal finite-difference nodes and not the topological nodes defining the endpoints of the channel segments.

Assigning zero baseflow means that baseflow will decrease to zero by the end of the channel, if the upstream channel has baseflow > 0. There is no infiltration in the channel.

If the kinematic equation solver returns channel depths less than 1.E-5 meters or feet, Kineros resets those depths to zero. In this case, the depth at 0.001 m3/s is less than 0.01 mm.

Hope that helps,
Lainie

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Re:baseflow
Posted by adehoces - 2008/02/27 10:46

Then Qbase values in the stream attribute table correspond to the downstream node of each one of the channels of the reach, is that right?

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Re:baseflow
Posted by lainie - 2008/02/27 21:20

Yes, that is correct.

Lainie

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Re:baseflow
Posted by adehoces - 2008/03/03 08:25

Great! now I can see what happens, thanks a lot!

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